

# **LHMP ANNEX**

## **Solano County**

### **Introduction**

With a diverse population of more than 394,542 residents with 45,440 living in the unincorporated area (based on the 2000 census<sup>1</sup>), the Solano County Operational Area encompasses the 7 cities and county located in the northern portion of the San Francisco Bay Area.. This includes the three largest cities of Vallejo, Fairfield and Vacaville along with the smaller cities of Benicia, Suisun City, Dixon and Rio Vista. The Fiscal Year '05 budget for Solano County is \$694 million and there are 2,972 approved employees of the county.

### **The Planning Process**

This process of preparing this plan was familiar to Solano County. The County has a Safety Element to its General Plan last updated in 1977 that includes a discussion of fire, earthquake, flooding, and landslide hazards. The General Plan is in the process of being update at this time and a review of mitigations strategies will be included in this update. In addition, the County routinely enforces the requirements of the California Environmental Quality Act (CEQA) requirements (which, since 1988, have required mitigation for identified natural hazards). The County's effort has focused on building on these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Many of the activities conducted by the County were fed into the planning process for the multi-jurisdictional plan. A member of the County Board of Supervisors also sits on the ABAG Executive Board. The County participated in various ABAG workshops and meetings, including the general "kick-off" meeting. In addition, the County has provided written and oral comments on the multi-jurisdictional plan. Finally, the County provided information on facilities that are viewed as "critical" to ABAG.

### **Hazard and Risk Assessment**

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). These hazards also impact this community.

While the County has undertaken a number of general hazard mapping activities since the first Safety Element was prepared by the County, all of these maps are less detailed and are not as current as those shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

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<sup>1</sup> For complete Census information on this city, see <http://www.bayareacensus.ca.gov/>.

The County examined the hazard exposure of County urban land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 102,317 urban acres in the County,

- ◆ 14,250 acres are in the 100-year flood plain, while an additional 4,298 acres are in other flood-prone areas;
- ◆ 16,766 are subject to dam inundation;
- ◆ 3,312 acres are in areas of existing landslides;
- ◆ 37,347 acres are in areas of moderate, high, or very high liquefaction susceptibility as mapped by the U.S. Geological Survey. California Geological Survey has not evaluated Solano County.
- ◆ California Geological Survey has not mapped Solano County for earthquake-induced landslide.
- ◆ 930 acres are in Alquist-Priolo study zones for active fault surface rupture mapped by the California Geological Survey.
- ◆ 6,621 acres are in the top two levels, while an additional 60,269 acres are in the next highest level, in large part because the County is in the vicinity of several known active and potentially active earthquake faults. These include the Hayward, Concord/Green Valley, North Hayward and the Mount Diablo faults.
- ◆ 19,355 acres are subject to high, very high, or extreme wildfire threat, but 32,404 acres are in wildland-urban interface threat areas.

The County also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Of the 8,048 miles of roadway in the County,

- ◆ 3,758 miles of roadway are in the 100-year flood plain;
- ◆ 3,577 miles of roadway are in an area subject to dam inundation;
- ◆ 718 miles of roads are in areas of existing landslides;
- ◆ 8,393 miles of roadway are in areas of moderate, high, or very high liquefaction susceptibility as mapped by the U.S. Geological Survey.
- ◆ 177 miles of roadway are in Alquist-Priolo study zones for active fault surface rupture mapped by the California Geological Survey;
- ◆ 2,442 miles of roadway are in the highest two categories of shaking potential;
- ◆ 2,325 miles of roadway are subject to high, very high, or extreme wildfire threat, 6,487 miles of roads are in wildland-urban interface threat areas.

Finally, the County examined the hazard exposure of critical health care facilities, schools, and county-owned buildings based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickcrit.html>. Of the 306 critical health care facilities, schools, and county-owned buildings in the County,

- ◆ 33 critical health care facilities, schools, or county-owned facilities are in either the 100-year flood plain or in other flood-prone areas;
- ◆ 23 critical health care facilities, schools, or county-owned facilities are in an area subject to dam inundation;
- ◆ 35 critical health care facilities, schools, or county-owned facilities are in areas of existing landslides;

- ◆ 73 critical health care facilities, or county-owned facilities are in areas of moderate, high, or very high liquefaction susceptibility as mapped by the U.S. Geological Survey, 43 schools are located in these areas;
- ◆ 53 critical health care facilities, 183 schools, and 81 county-owned critical facilities are in liquefaction study zones mapped by the California Geological Survey, while 24 critical health care facilities, 44 schools, and 29 county-owned critical facilities have not yet been evaluated;
- ◆ No critical health care facilities or county-owned facilities, however, 2 schools are in Alquist-Priolo study zones for active fault surface rupture mapped by the California Geological Survey.
- ◆ 5 schools and no county-owned facilities are in the highest two categories of shaking potential;
- ◆ 51 critical health care facilities, schools, or county-owned facilities are in wildland-urban interface threat areas.

County has recorded, as a result of the flood-prone areas, 28 repetitive loss properties based on the information at <http://quake.abag.ca.gov/mitigation/pickflood.html>.

The County plans to work with ABAG during 2006 to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft-story apartments located in the County.

Drought, though a potential problem in the County, is not fully assessed. The County will work with ABAG and various water supply agencies on this issue.

The County plans to work with ABAG to develop specific information about the type and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted. The ABAG Annex states that ABAG will be performing this work early 2006.

As these impacts are not fully developed, the County has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquakes (particularly shaking), flooding, wildfire, and landslides (including unstable earth) pose a significant risk for potential loss. The County is extremely concerned with the effects of earthquakes because seven of the ten forecast earthquakes would cause social and economic disruption at least equivalent to the 1989 magnitude 6.9 Loma Prieta earthquake, which resulted in approximately \$6 billion in direct physical damage and \$10 billion in total economic losses.

## **Mitigation Activities and Priorities**

As a participant in the ABAG multi-jurisdictional planning process, Solano County staff assisted in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The mitigation strategies list was reviewed by the County Resource Management Department, County General Services, Department of Agriculture, Department of Health and Social Services, American Red Cross, Clerk of the Board, and the Office of Emergency Services. The decision on priority was made based on a variety of criteria, not

simply on an economic cost-benefit analysis. The criteria include technical and administrative feasibility, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage. Existing programs, responsible offices, and other pertinent information has been provided on the attached spreadsheets.

Many of the strategies are existing programs already a part of the County's planning process through County Ordinance, building and fire code enforcement, and development of the County's General Plan. New activities identified, as part of this Annex will be incorporated into these existing mechanisms to ensure implementation. Other activities will require funds that have not been identified. The County will work to identify potential funding sources.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one.

## **Plan Maintenance and Updating Process**

Solano County Office of Emergency Services will ensure ongoing monitoring of this Annex. The County is committed to reviewing and updating this plan annex at least once every (5) five years, as required by the Disaster Mitigation Act of 2000. Major disasters affecting our community, legal changes, notices from ABAG, the lead agency in this process, and other triggers will be used in the monitoring process. Solano County Office of Emergency Services will coordinate the process of reviewing and updating this Annex annually. As a part of that process, County department heads will focus on evaluating the Annex in light of technological and political changes during the past year or other significant events. The department heads will be responsible for determining if the plan should be updated. The public will be involved whenever the plan is updated and, as appropriate, during the monitoring and evaluation process. The public hearings will comply with all Brown Act requirements. All public comments will be reviewed. Publicly initiated changes will be integrated into the plan updates whenever reasonable.